HIKVISION

Wi-Fi Repeater

User Guide

Legal Information

About this Manual

The Manual includes instructions for using and managing the Product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version of this Manual at the Hikvision website (https://www.hikvision.com/).

Please use this Manual with the guidance and assistance of professionals trained in supporting the Product.

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Disclaimer

Applicable Models

This guide is applicable to the model: DS-3WRE12C

Symbol Conventions

The typographical elements that may be found in this document are defined as follows.

Item	Presentation	Example
Cascading Menus	>	Navigate to **Status** > **Device Status**
Parameter and value	Bold	Set **User Name** to **Tom**.
UI control	Bold	On the **Policy** page, click the **OK** button.
Variable	Italic	Format: *XX:XX:XX:XX:XX:XX*
Message	" "	The "Success" message appears.

The symbols that may be found in this document are defined as follows.

Symbol	Description
⌷i⌷Note	Provides additional information to emphasize or supplement important points of the main text.
⚠ Caution	Indicates a potentially hazardous situation, which if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.

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Chapter 1 Quick Setup

This chapter introduces how to:

- [Extend the Current Wi-Fi Coverage](#)

- [Convert Wired Network to Wi-Fi Network](#)

1.1 Overview

The repeater supports Repeater mode and AP mode. In Repeater mode, you can extend your existing Wi-Fi network for broader Wi-Fi coverage. While in AP mode, you can connect the repeater to a router through an Ethernet cable to convert the wired network to wireless one.

Choose your scenario and perform setup.

If you want to	Set the repeater to	See
Extend your current WiFi coverage	Repeater mode	[1.2 Extend the current WiFi coverage](#)
Convert wired network to wireless network	AP mode	[1.3 Convert wired network to WiFi network](#)

1.2 Extend the Current Wi-Fi Coverage

Method 1: Extend Your Wi-Fi Network through Web UI (Recommended)

Note

- A desktop computer can connect to the Wi-Fi network only when it is installed with a wireless adapter.
- The following describes the configuration steps using a smartphone.

Step 1 Plug the repeater into a power outlet near the Wi-Fi router. Wait until the **PWR** indicator is solid on.

Step 2 Connect your smartphone to the repeater's Wi-Fi network: **HIKVISION_*XXXX***.
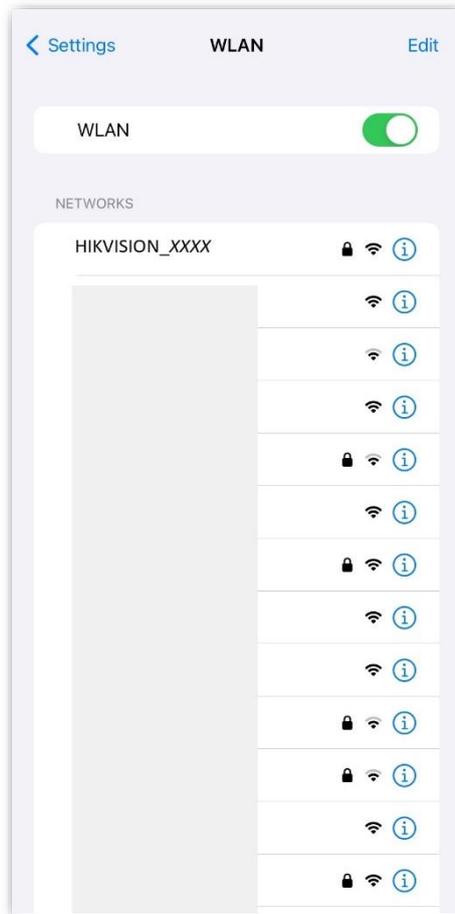
After connecting to the repeater's Wi-Fi network, you will be directed to the quick setup page.

⌐i⌐Note

If you cannot access the web UI of the repeater, try the following solutions:

- For Wi-Fi-enabled devices, such as a smartphone: ensure that your smartphone has connected to the repeater's Wi-Fi network named **HIKVISION_XXXX**, and the **Mobile Data** (if any) function is disabled. Then manually start a web browser on your smartphone, and visit **hikvisionwifi.local** in the address bar.
- For wired devices, such as a computer: ensure that your computer has connected to the repeater's Wi-Fi network named **HIKVISION_XXXX**, and your computer has set to **Obtain an IP address automatically** and **Obtain DNS server address automatically**.
- Replace a web browser.
- Reset the repeater, and try again.

Step 3 Create a login password for security (recommended) and tap **Next**.
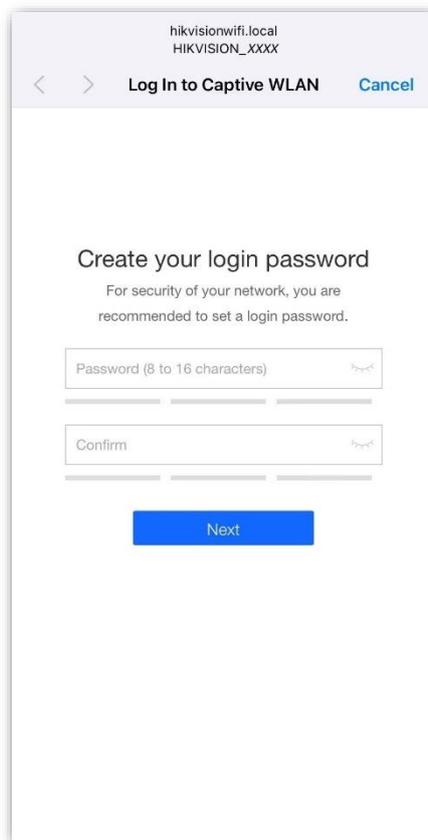
Step 4 Select the Wi-Fi network you want to extend, which is **HIKVISION_01** in this example.

ⓘNote

If the repeater cannot find the Wi-Fi network of your router. Try the following solutions:
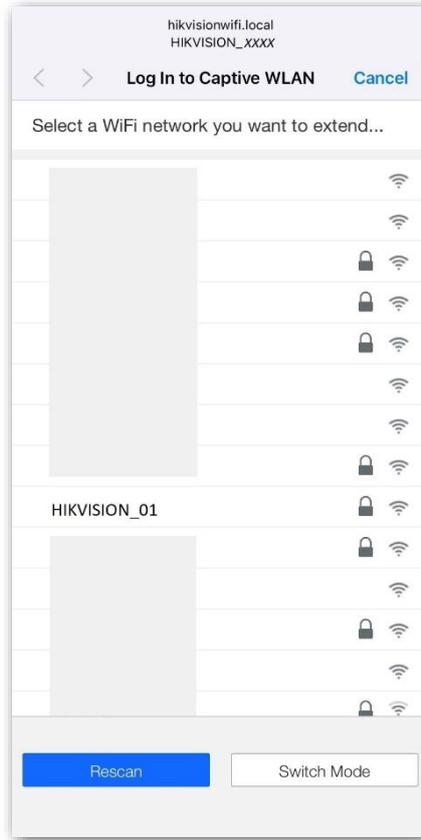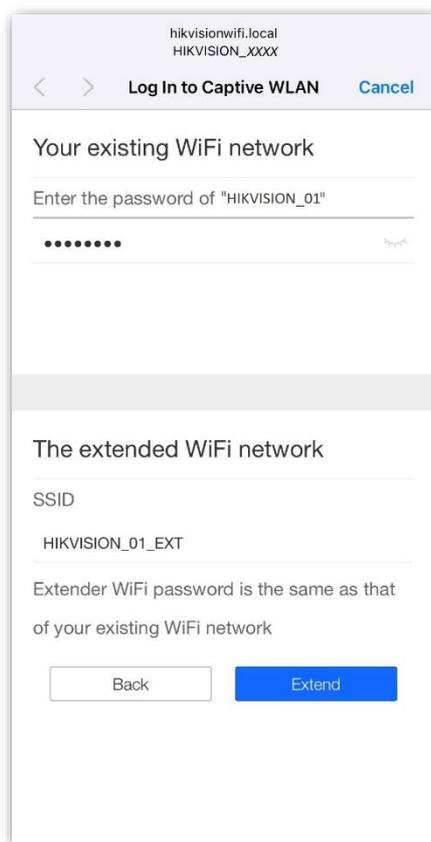
- Ensure that the Wi-Fi network of your router is enabled and can be detected by your Wi-Fi-enabled devices. Tap **Rescan**, and wait a moment.
- Change the channel of your router, and try again.
- Change the encryption type of the router to **WPA-PSK** or **WPA2-PSK**, and try again.

Step 5 Enter the password of the Wi-Fi network you want to extend, change the SSID as required, and tap **Extend**.

ℹ️**Note**

Configuration of the repeater SSID is a tradeoff between better roaming experience and convenient management. Therefore, modify it as required.

- If you keep it identical with your existing Wi-Fi network name, you may enjoy a better roaming experience when moving around, but may have troubles when logging in to the web UI for management since your management device may stay connected to your existing Wi-Fi network other than your repeater.
- If you set it differently from your existing Wi-Fi network name, you can log in to the web UI conveniently so long as your management device is connected to your repeater's SSID, but the roaming experience may be affected.

Step 6 Wait until the **Signal** indicator turns blue or red. Then, relocate the repeater following the on-screen tips for optimal connection quality.

ℹ️**Note**

For better performance:

- Place the repeater within the range of your existing Wi-Fi network.
- Place the repeater at a spacious position without obstacles.
- Keep the repeater away from electronics with strong interference, such as microwave ovens, Bluetooth devices, and refrigerators.
- Adjust the antennas of the repeater upward and vertical to the ground.

Connect your Wi-Fi-enabled devices to the extended network to access the internet.

- **SSID of the extended network:** The SSID you set, or the router's SSID with a suffix **_EXT** or **_5GEXT**.

- **Wi-Fi password of the extended network:** The same as that of the router.
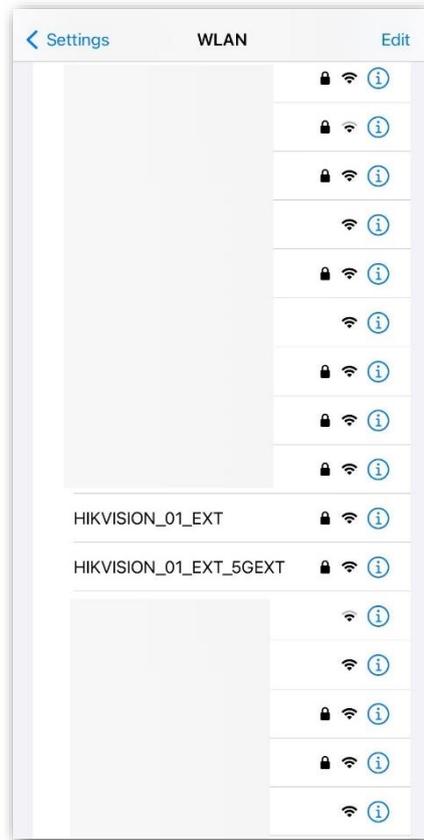
You can connect your wired devices to the LAN port of the repeater to access the internet as well.

Note

If you want to change the repeater's SSID and Wi-Fi password later, refer to Change Wi-Fi name and Wi-Fi password.

Method 2: Extend Your Wi-Fi Network through WPS button

⌊ⁱ⌋**Note**

You can use this method if your router has a WPS button. Otherwise, use [Method 1: Extend your Wi-Fi network using web UI](#).

Step 1 Plug the repeater into a power outlet. Wait until the **PWR** indicator is solid on.

Step 2 Press the WPS button on the router, and then press the WPS button on the repeater within 2 minutes. Wait until the **Signal** indicator turns on.

⌊ⁱ⌋**Note**

If the **Signal** indicator does not turn on, use [Method 1: Extend your Wi-Fi network using web UI](#).

Step 3 When the repeater extends your existing Wi-Fi network successfully, plug the repeater into an outlet halfway between the router and the Wi-Fi dead zone. The location you choose must be within the range of your existing Wi-Fi network.

Step 4 Check the Signal indicator to see whether the repeater is at a proper position.

- Blue: proper position
- Red: move the repeater closer to the Wi-Fi router
- Off: move the repeater closer to the Wi-Fi router

⌊ⁱ⌋**Note**

For better performance:
- Place the repeater within the range of your existing Wi-Fi network.
- Place the repeater at a spacious position without obstacles.
- Keep the repeater away from electronics with strong interference, such as microwave ovens, Bluetooth devices, and refrigerators.
- Adjust the antennas upward and vertical to the ground.

You can connect your wired devices to the LAN port of the repeater, or connect your Wi-Fi-enabled devices to the extended network to access the internet.

- **SSID of the extended network:** The SSID you set, or the router's SSID with a suffix **_EXT** or **_5GEXT**.

- **Wi-Fi password of the extended network:** The same as the router.
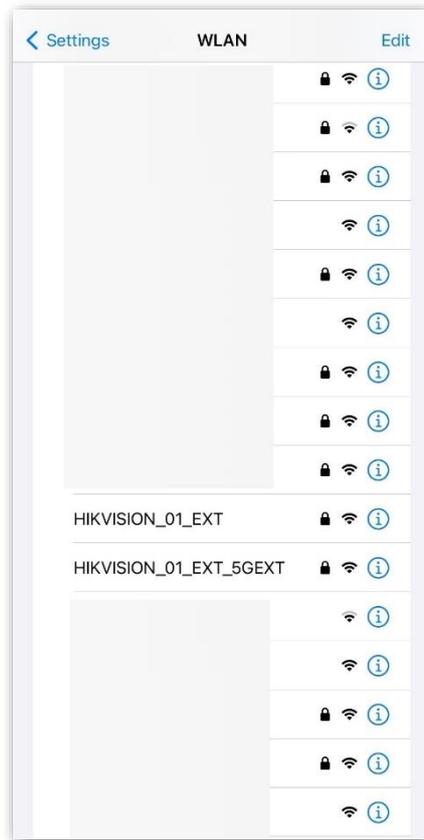
You can connect your wired devices to the LAN port of the repeater to access the internet as well.

⌈i⌋Note

If you want to change the repeater's SSID and Wi-Fi password later, refer to Change Wi-Fi name and Wi-Fi password.
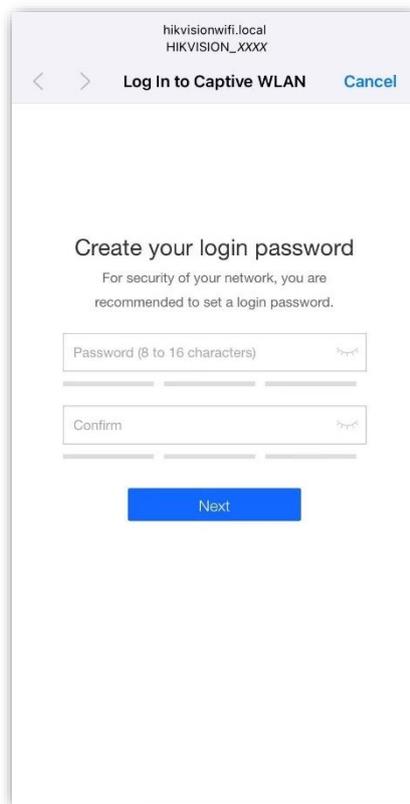
1.3 Convert Wired Network to Wi-Fi Network

📖**Note**

● Before you start, ensure that your Wi-Fi router can access the internet.
● For better performance, keep the repeater away from products with strong interference, such as microwave, Bluetooth devices, and refrigerator.
● Place the repeater at a spacious position without obstacles.

Step 1 Plug your repeater to a power outlet. Wait until the **PWR** indicator is solid on.

Step 2 Connect the repeater to the LAN port of the router using an Ethernet cable.

Step 3 Connect your smartphone to the repeater's Wi-Fi network: **HIKVISION_*XXXX*.**

Step 4 Create a login password (recommended), and tap **Next**.
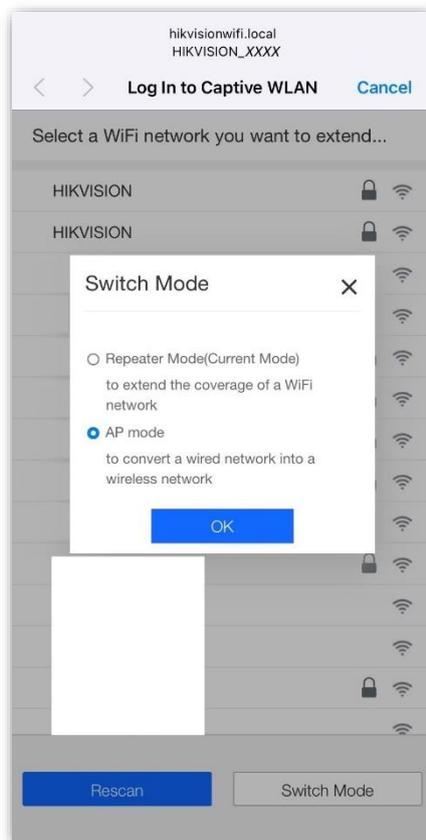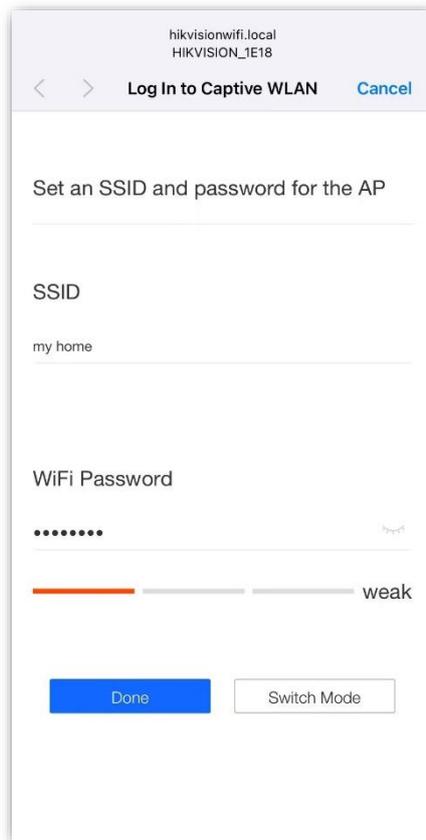
Step 5 Tap **Switch Mode** at the lower-right corner.
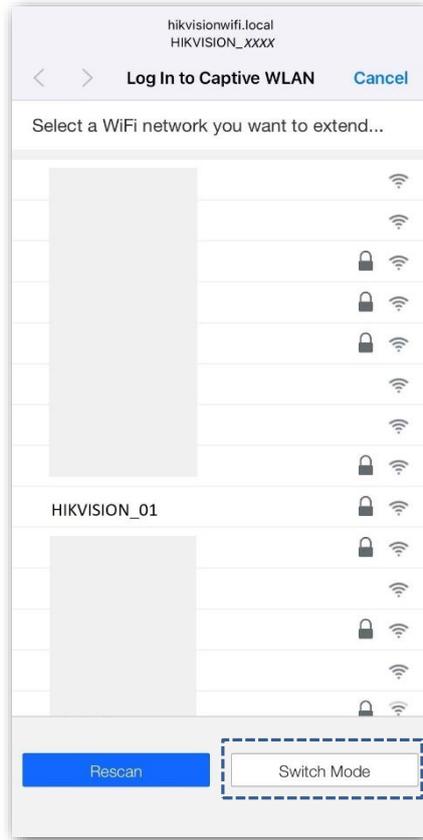
Step 6 Select **AP Mode**, and tap **OK.**

Step 7 Customize the SSID and Wi-Fi password as required, and tap **Done**. Wait a moment until the progress bar is completed.

The **Created Successfully!** page appears. Connect your Wi-Fi-enabled devices to the internet using the SSIDs shown on the page and Wi-Fi password you set.

Chapter 2 Status

ⓘNote

A computer is recommended for management of your repeater.

This chapter introduces how to:

− [View Internet Connection Status](#)

− [View Online Devices](#)

− [Block/Unblock Unknown Devices](#)

To access the configuration page, [log in to the web UI of the repeater](#), and click **Status**.

2.1 View Internet Connection Status

The internet connection status between the repeater and the existing Wi-Fi router is shown as below:

Internet connection status	Description
2.4 GHz: ·))) 71% 5 GHz: ·))) 75%	Extended successfully both on 2.4 GHz and 5 GHz bands. The signal strength is indicated by percentage.
·))) 85%	Extended successfully either on 2.4 GHz or 5 GHz band. The signal strength is indicated by percentage.
·⊗)	Failed to extend.

2.2 View Online Devices

In this section, you can see the quantity of clients connected to the repeater. Click **Online Device(s)** to view the detailed information about online devices, including **Device Name**, **Connection Type**, **MAC Address**, and so on.

Online Device (1)   ✕

Device Name	Connection Type	MAC Address	Add to Blocklist
UnKnown ✎	5G	22:66:75:46:5C:90	Block

2.3 Blacklist

Block Unknown Devices

Step 1 Log in to the web UI of the repeater.

Step 2 Navigate to **Status** > **Online Device(s)**.

Step 3 Click **Block** to block unauthorized or unknown devices.

Devices in the blacklist cannot connect to the repeater's Wi-Fi network. Navigate to **Status** > **Blocklist** to view the blocked devices.

Unblock Devices

Step 1 Log in to the web UI of the repeater.

Step 2 Navigate to **Status** > **Blocklist**.

Step 3 Click **Unblock** to remove the blocked device from the blocklist.

Devices removed from the **Blocklist** can connect to the repeater again.

Chapter 3 Re-extend the Repeater

If you need to use the repeater at another place, or if the wireless information (including Wi-Fi name, Wi-Fi password) of your existing router is changed, you can re-extend your repeater.

Step 1 Log in to the web UI of the repeater, and navigate to **Re-extend**.

i Note

The repeater supports to re-extend:

● Only 2.4 GHz Wi-Fi network.

● Only 5 GHz Wi-Fi network.

● Both 2.4 GHz and 5 GHz Wi-Fi networks at the same time. In this situation, ensure that the 2.4 GHz and 5 GHz SSIDs you choose are offered by the same Wi-Fi router.
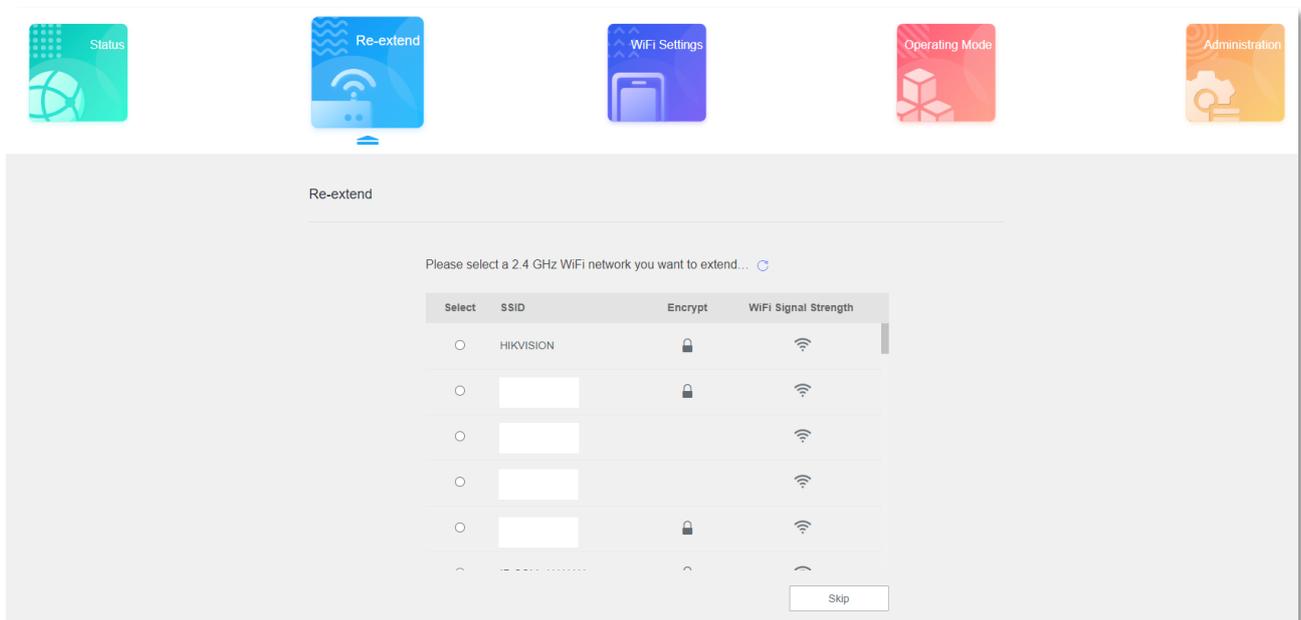
Step 2 Select the 2.4 GHz Wi-Fi network you want to re-extend. If you need to extend only a 5 GHz Wi-Fi network, click **Skip**.

1) Select the SSID from the list.

i Note

If the Wi-Fi network you want to extend is not on the list, try the following solutions:

● Click ↻ .

● Ensure that your existing Wi-Fi network is not hidden.

● Change the encryption type of the router to WPA-PSK or WPA2-PSK, and try again.

2) Enter the Wi-Fi password of the 2.4 GHz Wi-Fi network.
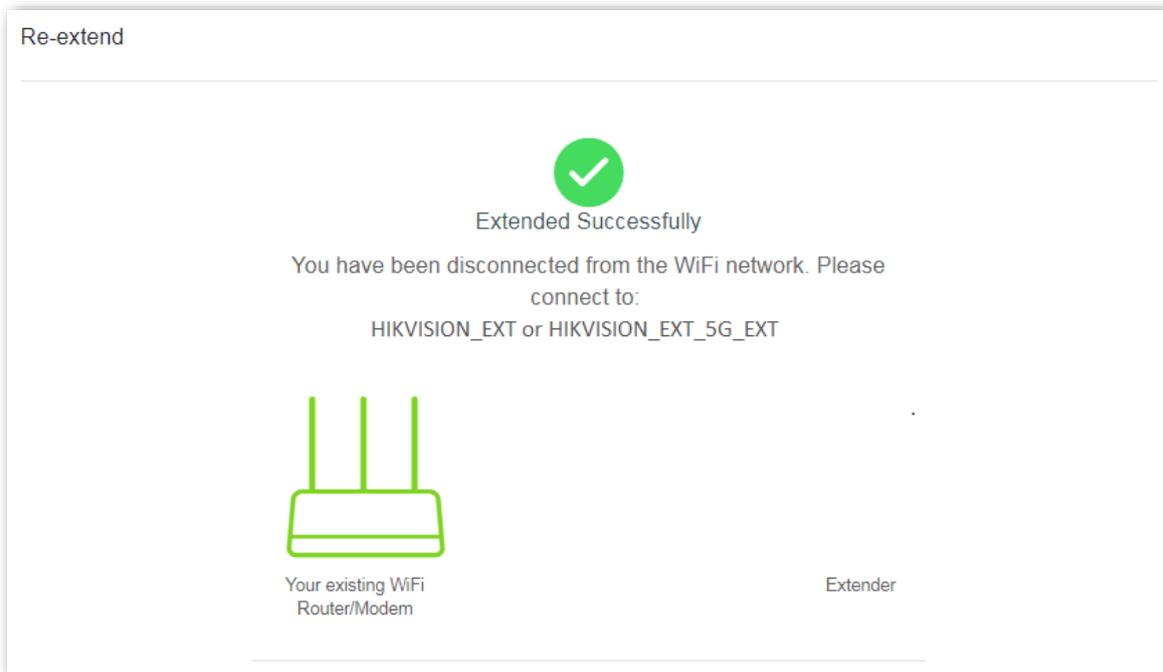
3) Change the SSID (optional).

⌐i⌐**Note**

The default SSID of the extended Wi-Fi network is your existing 2.4 GHz Wi-Fi network's SSID with a suffix **_EXT**.

4) Click **Next**.
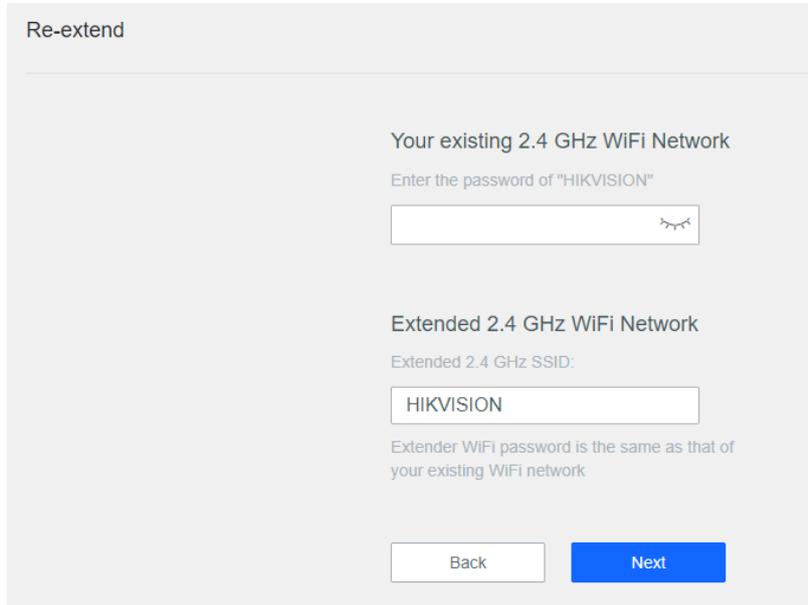
Step 3 Wait until the **Signal** indicator lights blue or red, and the following page appears.

Step 4 Plug the repeater into an outlet halfway between the router and the Wi-Fi dead zone. The location you choose must be within the range of your existing Wi-Fi network. Check the **Signal** indicator to see whether the repeater is at a proper position.

- Blue: Proper position

- Red: Move the repeater closer to the Wi-Fi router

- Off: Move the repeater closer to the Wi-Fi router

⌊i⌋Note

- For better performance, keep the repeater away from products with strong interference, such as microwave, Bluetooth devices, and refrigerator.
- Place the repeater at a spacious position without obstacles.

You can connect your Wi-Fi-enabled devices to the re-extended Wi-Fi network using the SSIDs you set or the existing Wi-Fi name with a suffix **_EXT/_5GEXT**.

Chapter 4 Wi-Fi Settings

This chapter introduces how to:

−   [Change Wi-Fi Name and Wi-Fi Password](#)

−   [Hide the Repeater's Wi-Fi Network](#)

−   [Connect to the Hidden Wi-Fi Network](#)

This module allows you to change the repeater's Wi-Fi name and Wi-Fi password, or to hide the repeater's Wi-Fi name.

To access the page, [log in to the web UI of the repeater](#), and navigate to **WiFi Settings**.

Table 4-1 Parameter description

Parameter	Description
SSID	Specifies the wireless network name of the repeater.
WiFi Password	Password used for wireless network connection. You are recommended to use the combination of digits, letters and special characters for higher security.
Hide WiFi	With this function enabled, wireless clients cannot detect the corresponding SSID, and you need to manually enter the SSID on the wireless client to access the wireless network. By default, this function is disabled.
No password	It indicates that a wireless network is not encrypted and any clients can access the network without a password. This option is not recommended as it leads to low network security.

4.1 Change Wi-Fi Name and Wi-Fi Password

Step 1 Log in to the web UI of the repeater.

Step 2 Navigate to **WiFi Settings**.

Step 3 Change the **SSID** and **WiFi Password** of 2.4 GHZ and 5 GHz networks as required.

Step 4 Click **Save**.

Note

To access the internet on the Wi-Fi-enabled devices, you need to connect to the new SSID using the Wi-Fi password you set.

4.2 Hide the Repeater's Wi-Fi Network

The repeater supports to hide its Wi-Fi network so that wireless devices cannot scan it, thus improving the security of the repeater's Wi-Fi network.

Step 1 Log in to the web UI of the repeater.

Step 2 Navigate to **WiFi Settings**.

Step 3 Tick **Hide WiFi** corresponded to the 2.4 GHz or 5 GHz network, and click **Save**.

After configurations, the repeater disconnects all clients connected to it.

4.3 Connect to the Hidden Wi-Fi Network

To connect to the repeater's Wi-Fi network again, you need to manually enter its SSID and Wi-Fi password on your Wi-Fi-enabled devices.

Assume that the relevant parameters as follows:

− Wi-Fi name: Alice

− Security: WPA2-PSK (Recommended)

− Wi-Fi password: UmXmL9UK

Procedure: (An iOS phone is used for illustration).

Step 1 Tap **Settings** on the homepage of your smartphone.

Step 2 Tap **WLAN**, and enable **WLAN**.

Step 3 Scroll down to the bottom of the WLAN page, and tap **Others...**
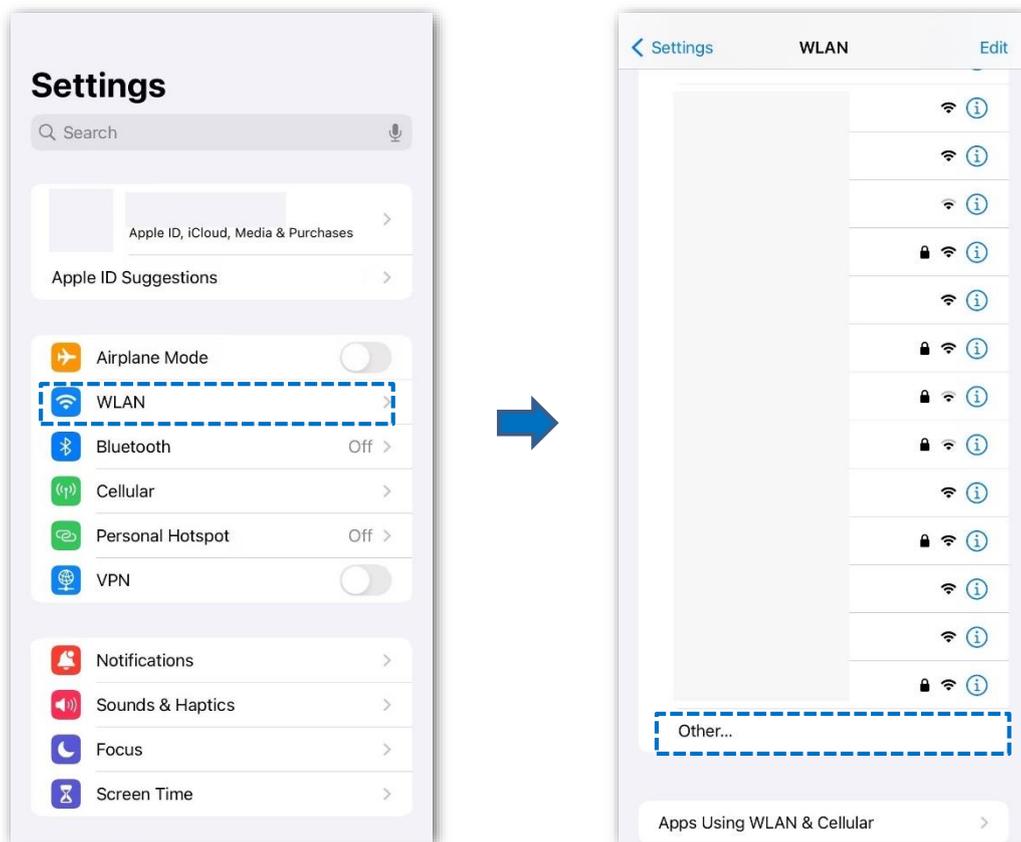
Step 4 Enter the network **Name**, which is **Alice** in this example.

Step 5 Set the **Security** mode, which is **WPA2/WPA3** in this example.

Step 6 Enter the **Password**, which is **UmXmL9UK** in this example.

Step 7 Tap **Join**.
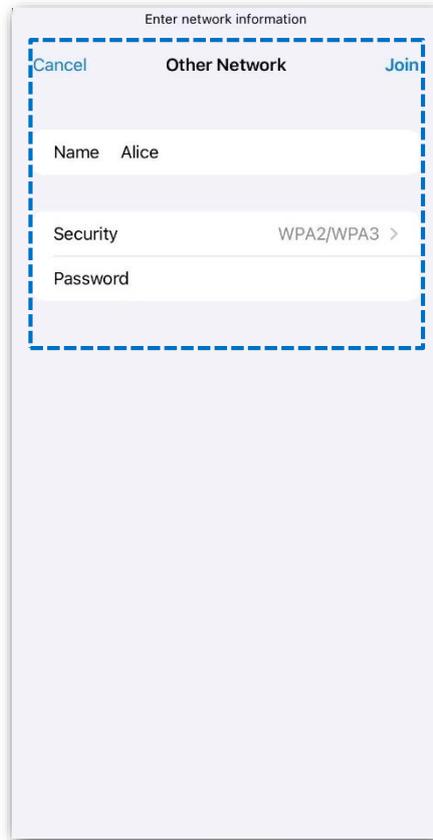
Wait until your smartphone connects to the repeater's Wi-Fi network, then you can access the internet.

Chapter 5 Operating Mode

This chapter introduces how to:

- Switch the Repeater from Repeater Mode to AP Mode

- Switch the Repeater from AP Mode to Repeater Mode

5.1 Overview

This repeater supports the following two modes:

- Repeater Mode: to extend Wi-Fi coverage of your existing Wi-Fi network. By default, the repeater works in this mode.

- AP Mode: to convert a wired network to a Wi-Fi network.

To access the configuration page, log in to the web UI of the repeater, and navigate to **Operating Mode**.
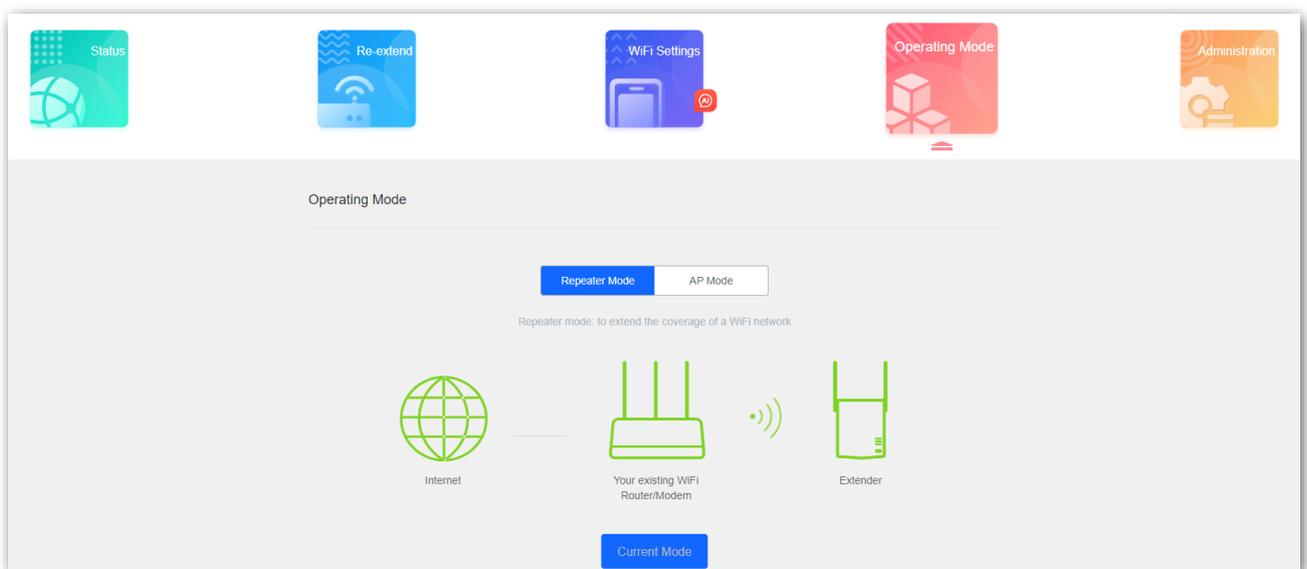
5.2 Switch the Repeater from Repeater Mode to AP Mode

Step 1 Log in to the web UI of the repeater.

Step 2 Navigate to **Operating Mode**.

Step 3 Click **AP Mode**.

Step 4 Click **Switch Mode**.
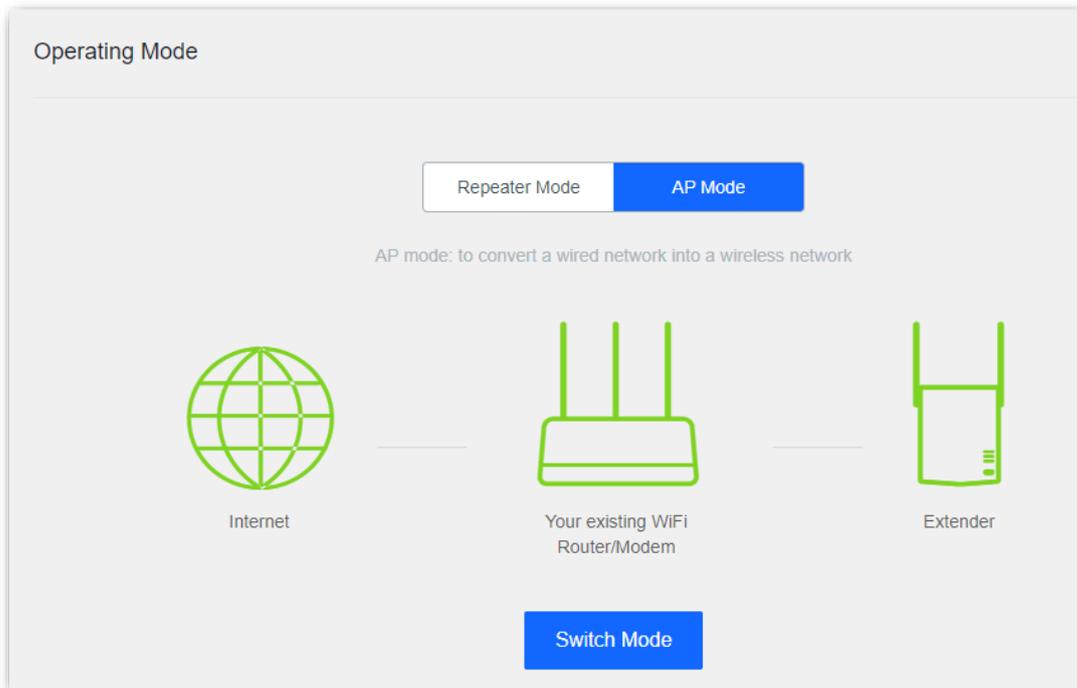
Step 5 Click **OK** on the pop-up window.
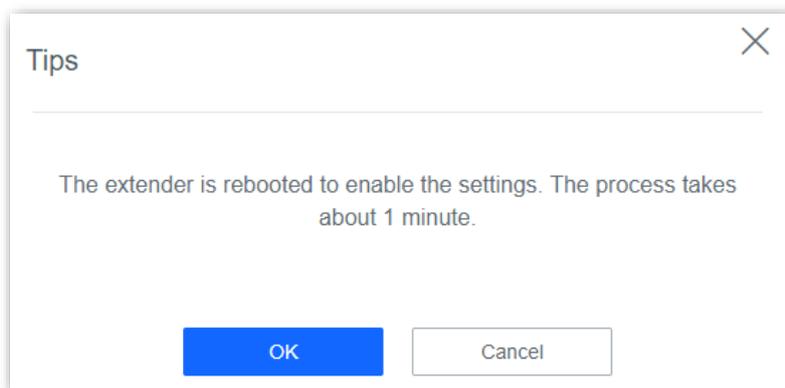
Step 6 Wait a moment until the progress bar is completed, and you will be redirected to the login page.

Step 7 Connect to the internet.

1) Connect your management PC to a SSID of the repeater, start a web browser, and visit **hikvisionwifi.local**. The following figure appears.
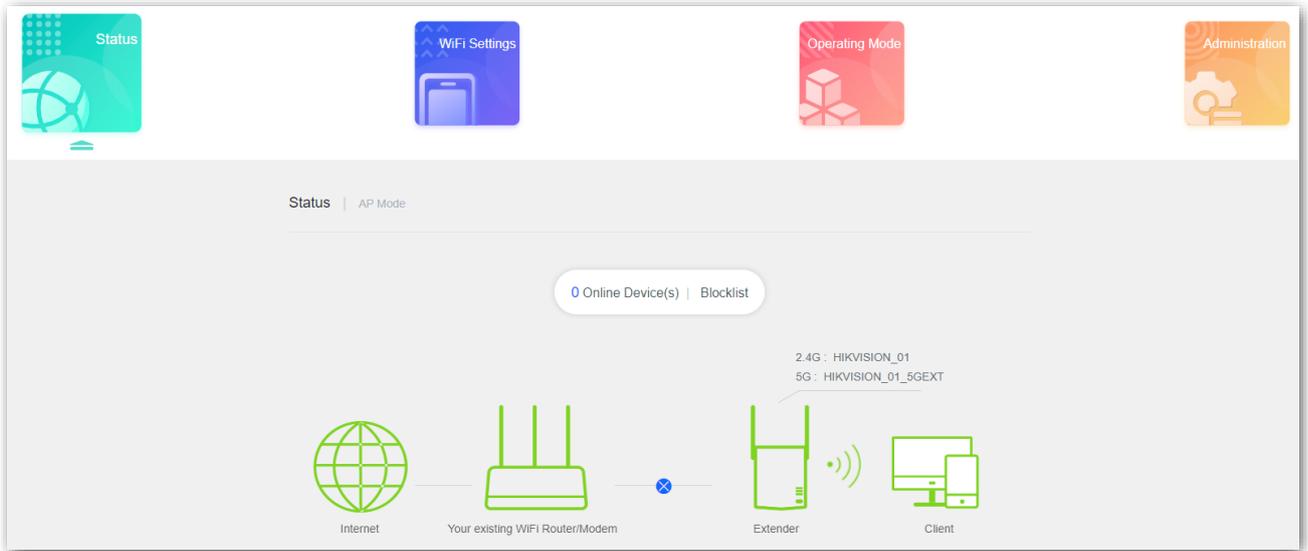
2) Use an Ethernet cable to connect the LAN port of your repeater to a LAN port of your existing Wi-Fi router. The following page appears.
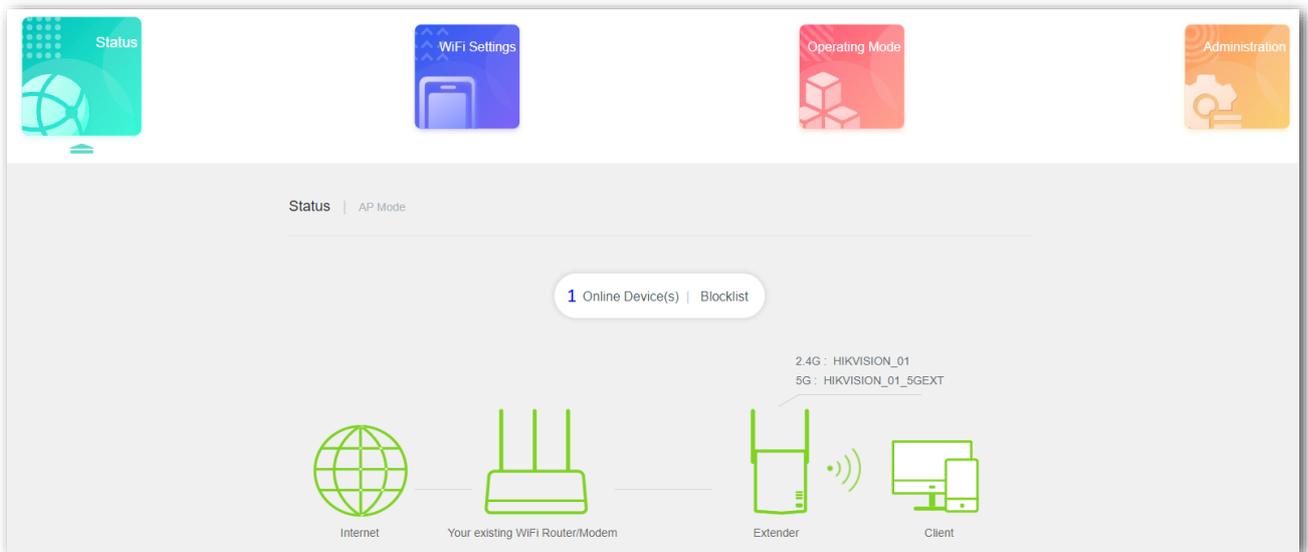
Now, the repeater works in AP mode. You can access the internet on your wireless devices by connecting the SSIDs of the repeater. If you want to change the SSIDs and passwords of the repeater, please refer to Change Wi-Fi Name and Wi-Fi Password.

5.3 Switch the Repeater from AP Mode to Repeater Mode

⬚ⓘ**Note**

Configurations (except Wi-Fi name and Wi-Fi password you set) will be cleared when you switch from AP mode to Repeater mode, and you need to configure your repeater again.

Step 1 Log in to the web UI of the repeater.

Step 2 Navigate to **Operating Mode**.

Step 3 Click **Repeater Mode**.

Step 4 Click **Switch Mode**.
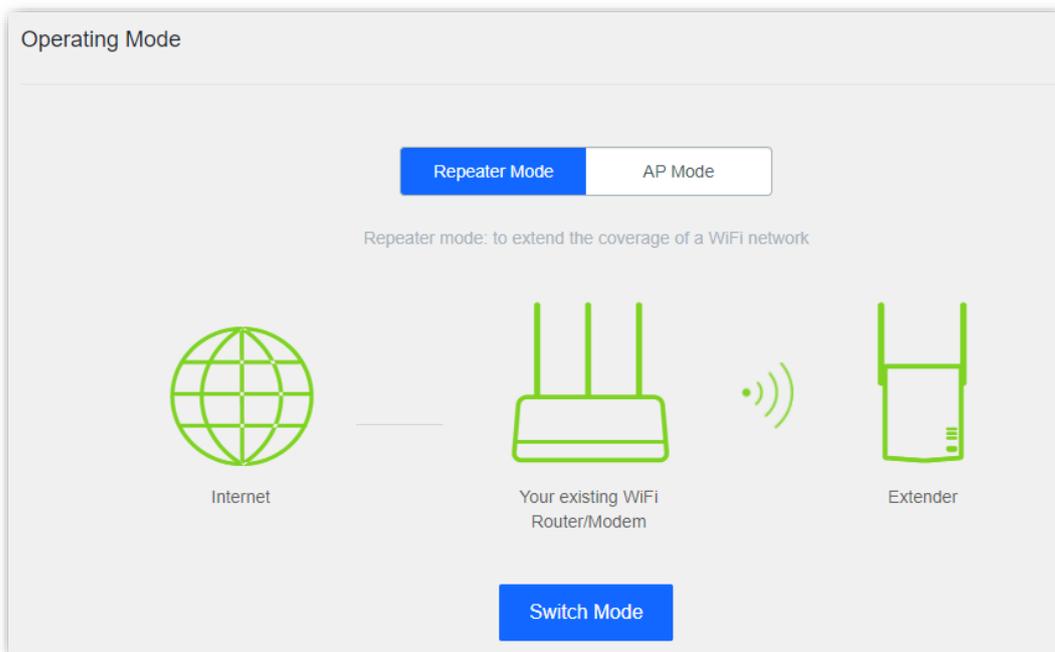
Step 5 Click **OK** on the pop-up window.
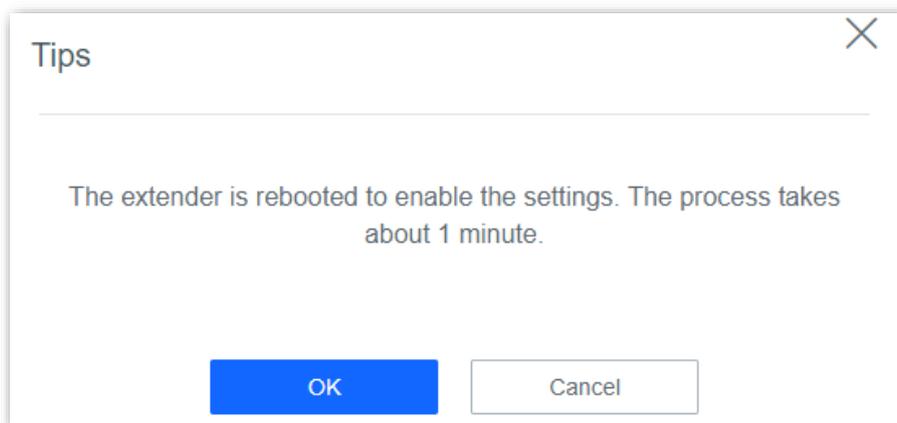
Step 6 Wait until the progress bar is completed. Then reconfigure it to extend the current Wi-Fi coverage.

After you set it in repeater mode successfully, remove the Ethernet cable between the repeater and your existing router.

Chapter 6 Administration

This chapter introduces how to:

- [Set Login Password](#)

- [Reboot the Repeater](#)

- [Reset the Repeater](#)

- [Export Syslog](#)

- [Upgrade Firmware](#)

This module allows you to set a login password, reboot or reset the repeater, export system logs, and upgrade the repeater.

6.1 Set Login Password

To ensure network security, a complicated login password is recommended. A login password consisting of more types of characters, such as uppercase letters, lowercase letters, and special characters, has better security.

Step 1 Log in to the web UI of the repeater.

Step 2 Navigate to **Administration**.

Step 3 In the **Old Password** text box, enter the current login password of the repeater.

Step 4 In the **New Password** text box, set a new login password.

Step 5 In the **Confirm** text box, repeat the new login password.

Step 6 Click **Save** at the bottom of the page.
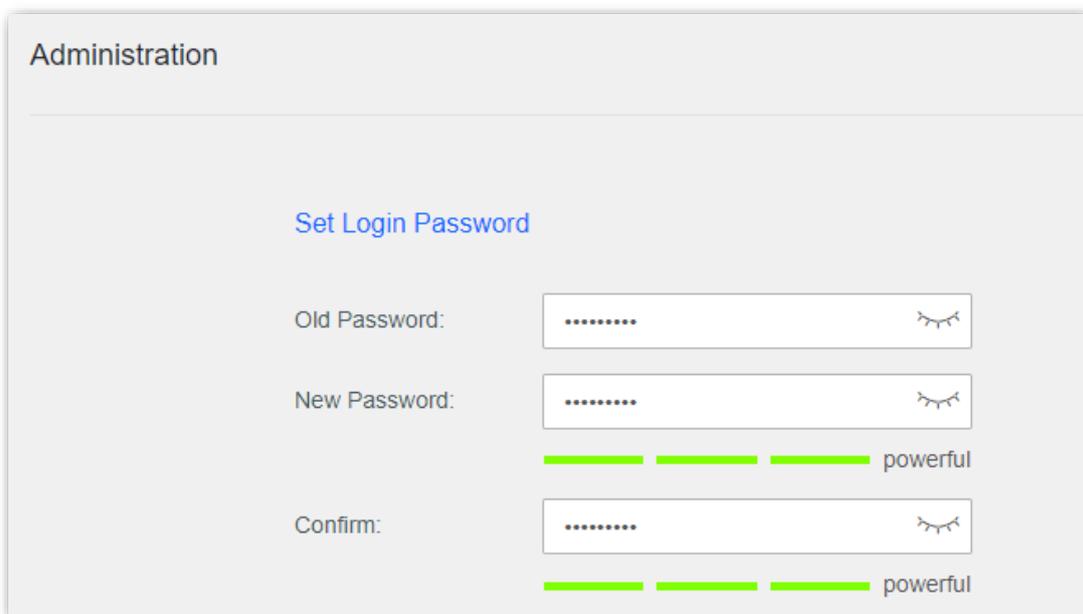
The system logs you out automatically. Enter the new password to log in to the web UI of the repeater.

6.2 Reboot the Repeater

You are recommended to reboot the repeater when the configured parameters do not take effect, or the repeater does not work properly.

Step 1 Log in to the web UI of the repeater.

Step 2 Navigate to **Administration**.

Step 3 Click **Reboot**.
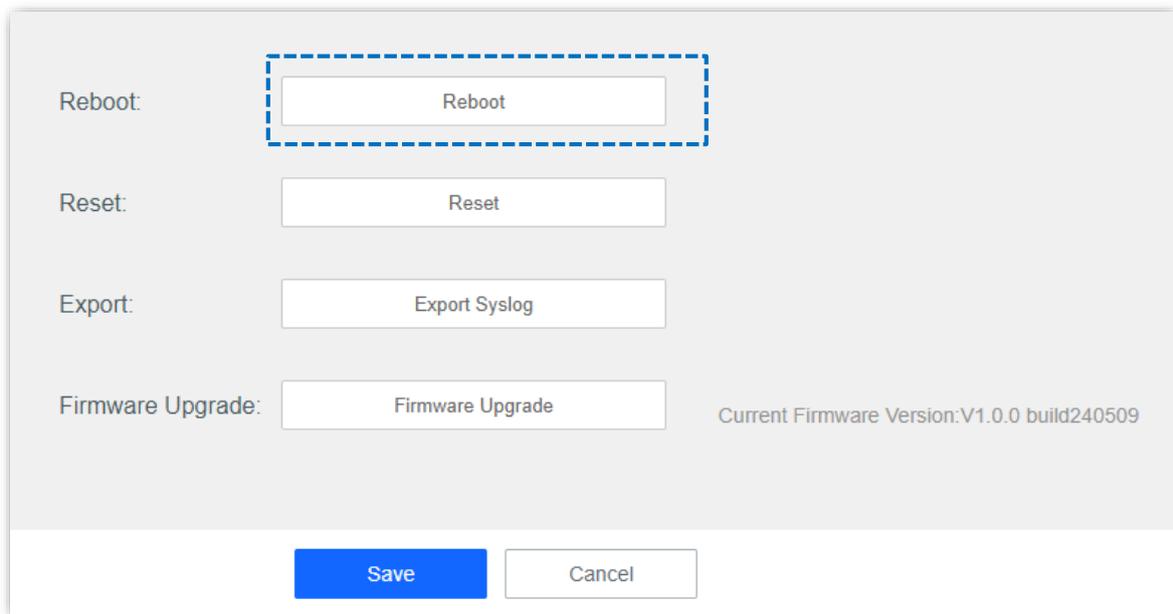
Step 4 Click **Reboot** on the pop-up window.
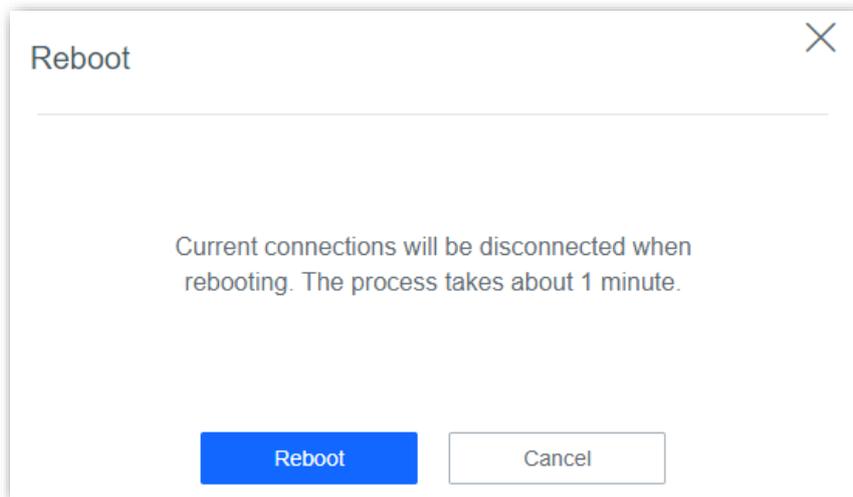
Wait a moment until the progress bar is completed.

6.3 Reset the Repeater

You are recommended to reset the repeater if you forgot your login password, or you cannot locate the problem that interrupts your repeater's Wi-Fi network service.

📖**Note**

Resetting the repeater clears all configurations. You need to configure the repeater again.

Reset the Repeater through Reset Button

With the **PWR** indicator solid on, hold the **RESET** button down using a paper clip, and release it when all indicators blink once then turn off. Wait until the **PWR** indicator lights solid on again, the repeater is restored to factory settings.

Reset the Repeater through Web UI

Step 1 Log in to the web UI of the repeater, and navigate to **Administration**.

Step 2 Click **Reset**.

Step 3 Enter and confirm the login password, and then click **OK**.
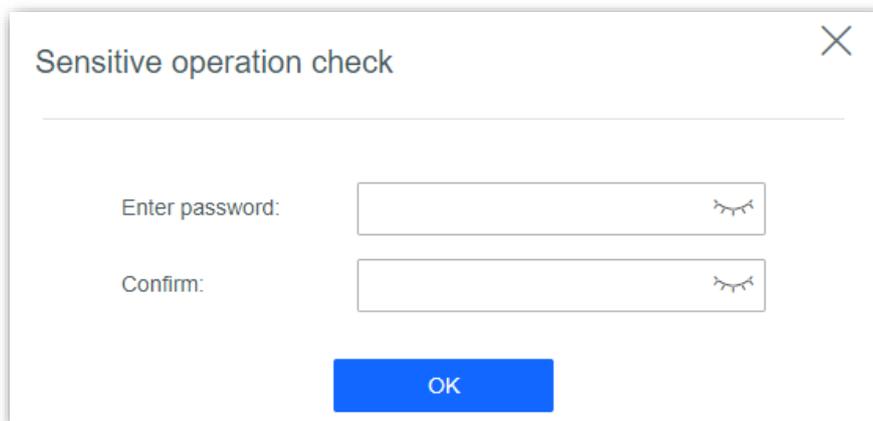
Wait a moment until the progress bar is completed. You need to reconfigure the repeater.

6.4 Export Syslog

System log is used to record events happened when the repeater works. You can export the system log as required.

To access the configuration page, log in to the web UI of the repeater, navigate to **Administration**, and click **Export Syslog** to export system logs.
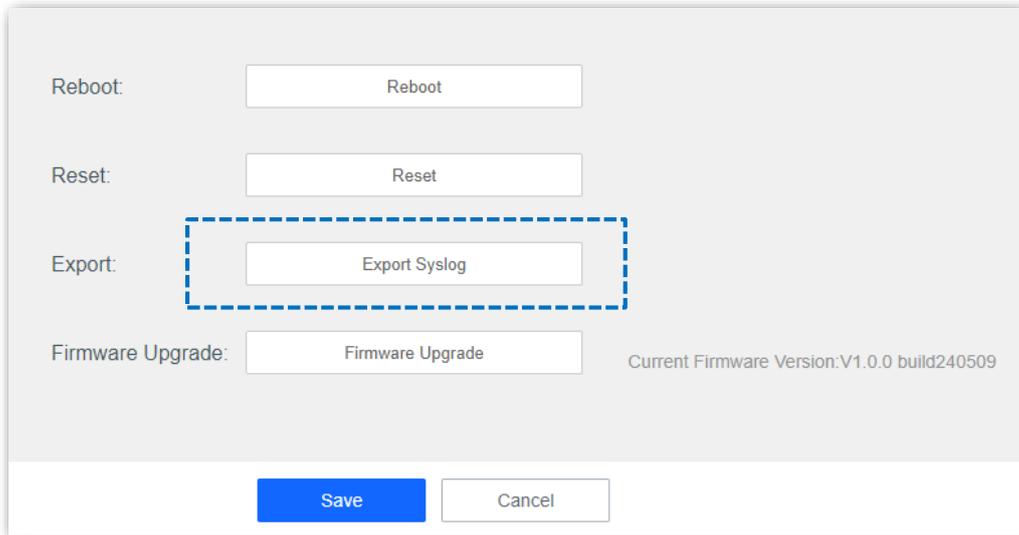
6.5 Upgrade Firmware

📖**Note**

- To enable your repeater to upgrade successfully, ensure that the firmware used to upgrade is applicable to the repeater.
- During upgrade, do not power off the repeater.

Step 1 Go to www.hikvision.com, download the latest firmware package to your local computer, and unzip the package.

📖**Note**

Generally, the file format of a firmware is **.bin**.

Step 2 Log in to the web UI of the repeater, and navigate to **Administration**.

Step 3 Click **Firmware Upgrade** and choose the firmware file you have unzipped.

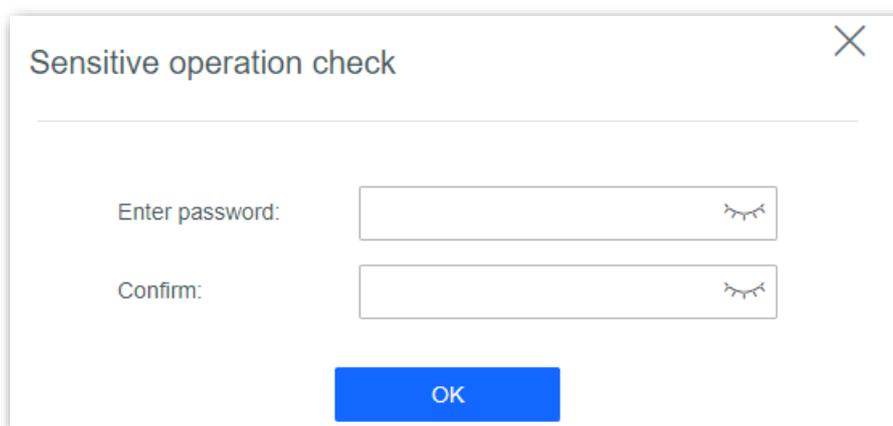Step 4 Enter and confirm the login password, and click **OK**.
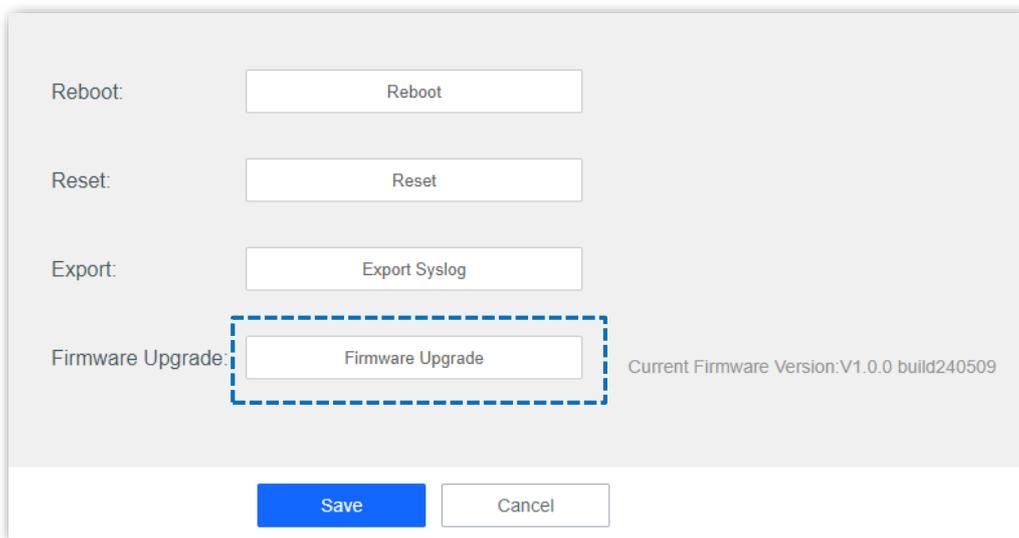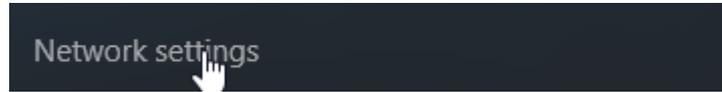

Wait until the progress bar is completed. Log in to the web UI of the repeater, navigate to **Administration** and verify if the **Current Firmware Version** is the one you select to upgrade.

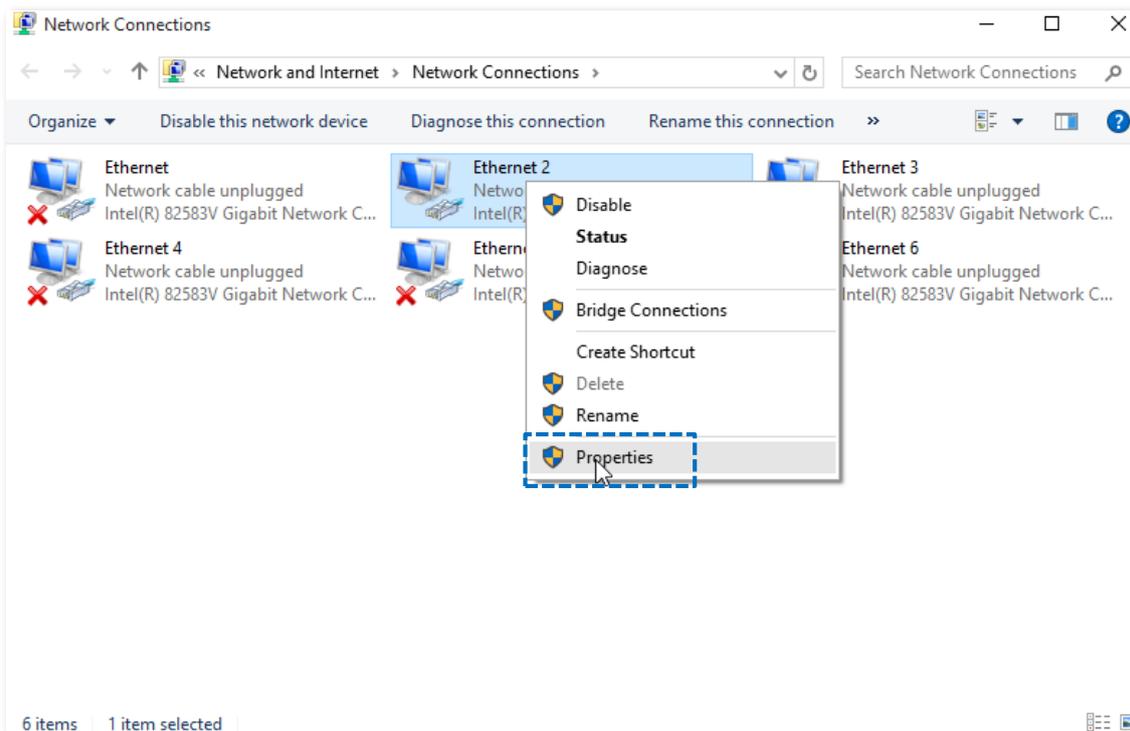# Configure the Computer to Obtain an IPv4/IPv6 Address Automatically (Example: Windows 10)

Step 1 Click in the bottom right corner of the desktop and choose **Network settings**.
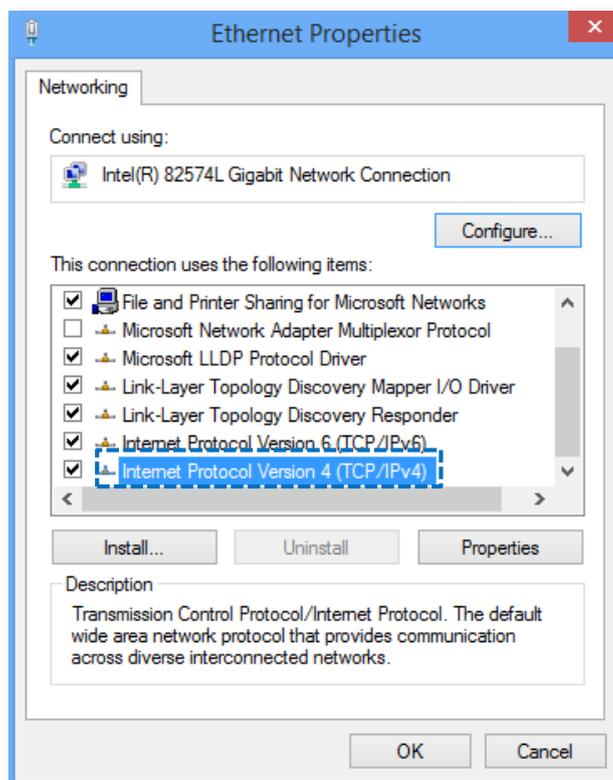

Step 2 Click **Change adapter options**.
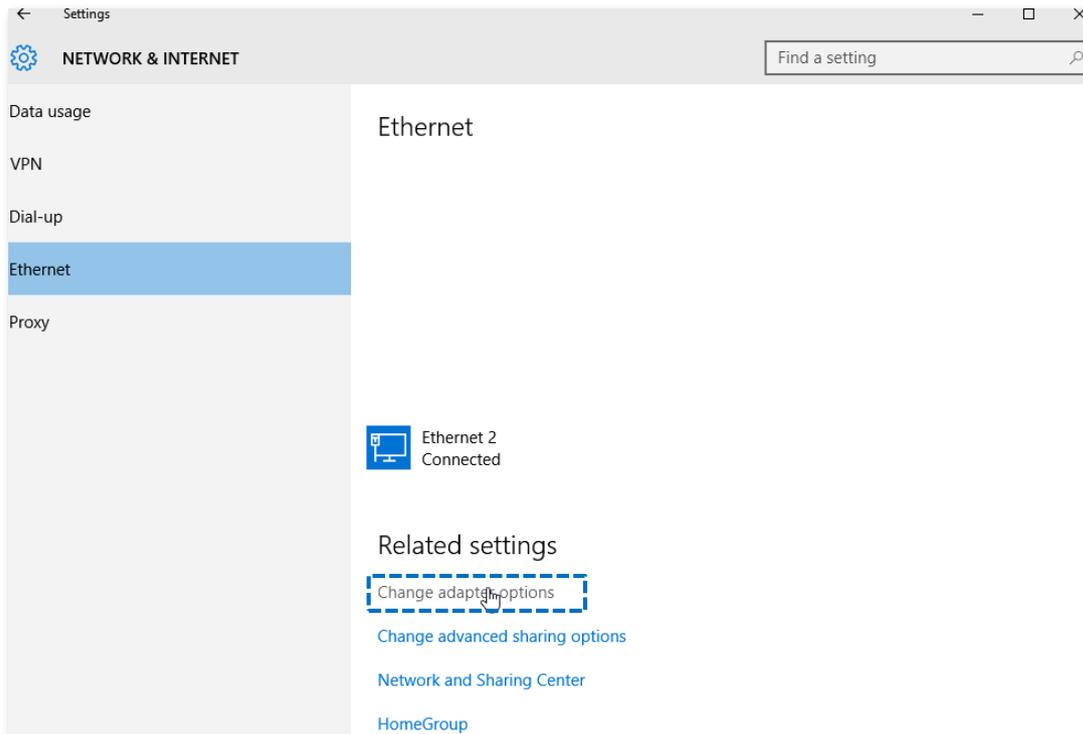
Step 3 Right click on the connection which is being connected, and then click **Properties**.
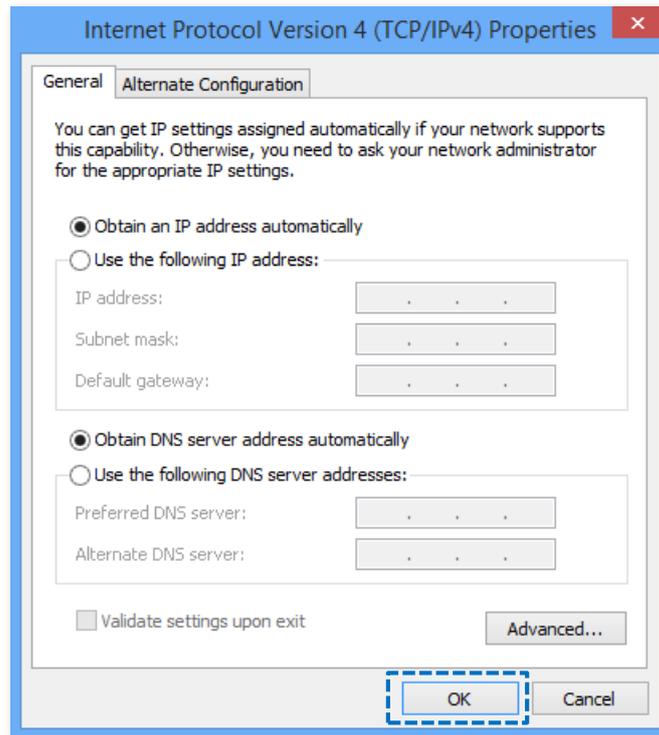

Step 4 Double-click **Internet Protocol Version 4 (TCP/IPv4)**.

Note

If you want to configure the computer to allow it obtain an IPv6 address automatically, choose **Internet Protocol Version 6 (TCP/IPv6)**.

Step 5 Select **Obtain an IP address automatically** and **Obtain DNS server address automatically**, and click **OK**.

Step 6 Click **Close** in the Ethernet Properties window.

See Far, Go Further